

REMARKS

Applicants have reviewed the application in light of the Office Action dated December 23, 2003. Claims 1-15 have been canceled without prejudice, and Applicants reserve the right to pursue the subject matter of those claims in this and in any other application. Claims 16-59 have been added. Favorable action on the application with claims 16-59 is respectfully requested in light of the remarks that follow.

The drawings are objected to for failing to comply with 37 C.F.R. § 1.84. This objection is obviated in view of the drawing correction and amended specification presented as part of this response. Specifically, Figure 14A has been amended to include reference labels 172 and 173, and Figure 13A has been amended to replace reference label 131 with 161. Additionally, the specification has been amended to include each of the reference labels shown in the drawings. These changes merely provide consistency and do not change the scope of the material that was originally submitted as part of this application.

The title of the invention has been amended as required by the Examiner. The new title reads “Capillary Array Electrophoresis Apparatus.”

The present invention relates to a capillary array electrophoresis apparatus. A feature of the invention, as recited by claim 16, is that “the laser beam is incident on an outermost end capillary in the detection portion *in an inclined manner* so that an optical path of the incident laser beam into the end capillary differs from an optical path of a laser beam reflected from the detection portion.” Since a laser beam crossing the plurality of capillaries is reflected in a complex manner by the respective capillaries, the laser beam light intensity reflected at the detection portion (the reflected return light) is high. And if the reflected return light reaches the laser oscillator, the laser oscillation becomes extremely unstable and analysis accuracy is extremely deteriorated. In accordance with the claimed invention, however, reflected return light never reaches the laser oscillator, and the analysis accuracy is improved.

Anazawa teaches a technology for enhancing the light intensity of the laser beam passing the respective capillaries. Unlike the claimed invention, Anazawa teaches that the laser beam is incident perpendicularly to the end (outermost) capillary in the detection portion (Figs. 3 and 4). Accordingly, the optical path of the laser beam incident on the detection portion and the optical path of the laser beam reflected from the detection portion are presumably the same. Therefore, Anazawa does not teach or suggest each of the claim limitations recited by claim 16.

Similarly, claim 25 recites, *inter alia*, “an optical axis of the laser beam incident on an outermost end capillary *is inclined with respect to a line that is perpendicular to a center axis of the end capillary* on a plane formed by center axes of the capillaries in the detection portion.” As explained above, Anazawa teaches that the optical axis of the laser beam incident on an end (outermost) capillary is perpendicular to a center axis of the end capillary on a plane formed by center axes of the capillaries in the detection portion (Figs. 3 and 4). Therefore, Anazawa does not teach or suggest each of the claim limitations recited by claim 25.

Similarly, claim 33 recites, *inter alia*, “the laser beams are incident on outermost end capillaries at both sides in the detection portion *in an inclined manner* so that an optical path of the incident laser beam into each end capillary differs from an optical path of a laser beam reflected from the detection portion.” Unlike the claimed invention, Anazawa teaches that the incident laser beams make are perpendicularl to the end (outermost) capillary in the detection portion (Figs. 10A and 10B). Accordingly, the optical path of the incident laser beam and the optical path of the laser beam reflected from the detection portion are presumed the same. Therefore, Anazawa does not teach or suggest all of the claim limitations recited by claim 33.

Similarly, claim 47 recites, *inter alia*, “optical axes of the laser beams incident on outermost end capillaries *are inclined with respect to a line that is perpendicular to a center axis of the end capillaries* on a plane formed by center axes of the capillaries in the detection

portion." For reasons discussed above, Anazawa does not teach or suggest all of the claim limitations recited by claim 47.

For at least these reasons, and because none of the other references of record cure the deficiencies of Anazawa, claims 16, 25, 33, and 47 are submitted to be allowable over the prior art of record. Claims 17-24, 26-32, 34-46, and 48-59 depend from claims 16, 25, 33, and 47, respectively, and are allowable for at least these reasons and for the unique combination of elements recited therein.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

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Respectfully submitted,

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